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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/306,813	05/07/1999	YOSHINORI KUNO	P99.0372	3991

7590

12/19/2002

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EXAMINER

MISLEH, JUSTIN P

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/306,813

Applicant(s)

KUNO ET AL.

Examiner

Justin P Misleh

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: VDD and GND (figures 1 and 4). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: RG (pages 15 and 17). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Art Unit: 2612

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Maki.
6. For claims 1 and 2, Maki teaches, as shown in figure 17 and as stated in column 1 (lines 8 – 24), a typical CCD linear sensor (170) comprising a pixel (171) row (172), a read-out gate (173) for reading out the signal charge stored in the pixels, and a charge transfer register (174) with a charge-voltage converter (175) at the end thereof. It is noted that the CCD linear sensor taught in figure 17, uses 4 driving pulses of which 3 are generated by the timing generator circuit (177). Maki discloses, as shown in figure 1, a switching circuit (10) in which a signal generated (reset signal) in timing generator circuit (20) can be switched to a predetermined voltage level (Vdd). Maki shows in figure 2 a block diagram of an application of the above described switch circuit and CCD linear sensor. Therefore, Maki discloses, as shown in figure 2 and as stated in column 5 (lines 36 – 50), a solid state image pickup device (figure 2) and a method for driving a solid state image pickup device being provided with a photoelectric converter portion (30) being composed of a plurality of pixels disposed in a row, a charge transfer portion (31) for transferring the charges generated in said photoelectric converter portion and a charge/voltage converter portion (32) for converting the charges transferred by said charge transfer portion into voltages comprising: a timing pulse generator portion (20) for generating at least more than one pulse signal (ϕ_1 – not shown but inherent (figure 17), ϕ_2 , and ϕ_{rs}) from among four pulse signals (ϕ_1 – not shown but inherent (figure 17), ϕ_2 , OG, and ϕ_{rs}) which are; a first pulse signal for driving said charge transfer portion, a second pulse signal for reading out the charges generated in said photoelectric converter portion, a third pulse signal for sweeping out the charges generated in said photoelectric converter portion, and a fourth pulse signal for

Art Unit: 2612

discharging the charges transferred to said charge/voltage converter portion, and a switch circuit (10) for switching over at least one pulse signal (\emptyset rs) out of said pulse signals of more than one to a predetermined fixed potential (Vdd) or a floating level.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maki in view of Kawamoto et al.

9. For claim 3, Maki discloses, as shown in figure 2 and as stated in column 5 (lines 36 – 50), a method for driving a solid state image pickup device being provided with a photoelectric converter portion (30) being composed of a plurality of pixels in a row, and a charge transfer portion (31) for transferring the charges generated in the row of pixels in the plurality of photoelectric converter portions, wherein in a first mode, driving pulses (\emptyset 1 – not shown but inherent (figure 17), \emptyset 2, OG, and \emptyset rs) are supplied to the charge transfer portion. Maki does not disclose a plurality of photoelectric conversion portions or a plurality of charge transfer portions for transferring the charges generated in respective rows of pixels and wherein a second mode the driving pulses to be supplied to at least one of said plurality of charge transfer portions are switched over to a predetermined fixed potential or a floating level. Kawamoto et al. discloses, as shown in figure 1, a plurality of photoelectric conversion portions (31R, 31G, and

Art Unit: 2612

31B) and a plurality of charge transfer portions (32R, 32G, and 32B) for transferring the charges generated in respective rows of pixels. One would be motivated to include the switching circuit, as disclosed by Maki, to drive pulses to be supplied to, wherein at least one of the plurality of charge transfer portions are switched over to a predetermined fixed potential or a floating level, in the plurality of rows with a plurality of charge transfer portions, as shown by Kawamoto et al. as a means to pickup colors sensitive to the human eye (R, G, B). Therefore, it would have been obvious to include a plurality of rows as shown by Kawamoto et al. in the solid state image pickup device of Maki.

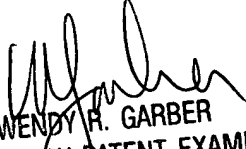
Art Unit: 2612

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The examiner can normally be reached on Monday - Friday, 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9314 for regular communications and 703.872.9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703.306.0377.

JPM
December 13, 2002


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600